RBTCF

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MEMORANDUM

DATE: March 14, 1995

TO: Jeryl Kolb, Project Manager, E & E, Seattle, WA

FROM: Mark Woodke, TAT-Chemist, E & E, Seattle, WA

THRU: Michael Boykin, TAT-Chemist, E & E, Seattle, WA

SUBJ: **Inorganic Data Quality Assurance Review, Ridgefield Site, Ridgefield, WA**

REF: Project TDD: T10-9410-028 Analytical TDD: T10-9412-004
Project PAN: EWA-0797-SB Analytical PAN: EWA-0787-AA

The data quality assurance review of 2 water samples collected from the Ridgefield site in Ridgefield, Washington, has been completed. Priority Pollutant Inorganics analysis (EPA 6000 and 7000 series methods) were performed by Sound Analytical Services, Tacoma, WA.

The samples were numbered: T4120213 T4120223

Data Qualifications:

I Sample Holding Time: Acceptable.

The samples were collected 12-15-94 and were analyzed by 12-28-94, therefore meeting QC criteria of less than 28 days between collection and mercury analysis and less than 6 months between collection and analysis for all other elements.

II Calibration

A. Initial Calibration: Acceptable.

All ICP results were within the control limits of 90 to 110 percent of the true values. All mercury results were within the control limits of 80 to 120 percent of the true values.

B. Continuing Calibration: Acceptable.

All ICP results were within the control limits of 90 to 110 percent of the true values. All mercury results were within the control limits of 80 to 120 percent of the true values.

III Blanks: Acceptable.

No blanks contained elemental contamination above the Instrument Detection Limit (IDL).

IV Interference Check Sample Analysis: Acceptable.

All parameters for the Interference Check Sample were within the control limit of 80 to 120 percent of the true values.

V Precision and Bias Determination: Not Performed.

Samples necessary to determine precision and bias were not provided to the laboratory.

VI Performance Evaluation Sample Analysis: Not Performed.

Performance evaluation samples were not provided to the laboratory.

VII Laboratory Control Sample Analysis: Acceptable.

Laboratory Control Sample results were within QC limits.

VIII ICP Serial Dilution: Acceptable.

The Serial Dilution results were within QC limits.

X Overall Assessment of Data for Use

All applicable ICP CCV analyses were performed within one hour of each other.

Results greater than the IDL but less than the CRDL were flagged as estimated quantities (J).

The overall usefulness of the data is based on the criteria outlined in the OSWER Guidance Document "Quality Assurance/Quality Control Guidance for Removal Activities, Data Validation Procedures" (EPA /540/G-90/004).

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the contract required detection limits or quality control criteria were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

20213

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: E&E_____

Lab Code: SAS___ Case No.: _____ SAS No.: 45233W SDG No.: 45233W

Matrix (soil/water): WATER Lab Sample ID: 45233-1

Level (low/med): LOW__ Date Received: 12/19/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	3.0	U		M
7440-38-2	Arsenic	1.0	U		M
7440-39-3	Barium				NR
7440-41-7	Beryllium	3.2	U		P
7440-43-9	Cadmium	4.8	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	7.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	15.0	B	J	P
7439-89-6	Iron				NR
7439-92-1	Lead	13.3			M
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	36.2	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.5	U		M
7440-22-4	Silver	8.4	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		M
7440-62-2	Vanadium				NR
7440-66-6	Zinc	52.0			P
0000-00-0	Silicon				NR

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Color After: _____ Clarity After: _____ Artifacts: _____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

20223

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: E&E_____

Lab Code: SAS___ Case No.: _____ SAS No.: 45233W SDG No.: 45233W

Matrix (soil/water): WATER Lab Sample ID: 45233-2

Level (low/med): LOW__ Date Received: 12/19/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	3.0	U		M
7440-38-2	Arsenic	5.4			M
7440-39-3	Barium				NR
7440-41-7	Beryllium	3.2	U		P
7440-43-9	Cadmium	4.8	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	7.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	27.6			P
7439-89-6	Iron				NR
7439-92-1	Lead	6.4			M
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	36.2	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	8.0			M
7440-22-4	Silver	8.4	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	6.1	B J		M
7440-62-2	Vanadium				NR
7440-66-6	Zinc	60.2			P
0000-00-0	Silicon				NR

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